

Docket Number PA-085.10975-US  
Appl. No. 10/771,587  
Reply to Office action of July 7, 2005

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Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (original) A rotor blade for a rotor assembly, comprising:
  - a root;
  - an airfoil, having a length that extends between a base and a tip, a first side wall, a second side wall, at least one cavity disposed between the side walls, and a channel defined by a first wall portion and a second wall portion; and
  - a damper selectively received within the channel, the damper including a body having a first bearing surface, a second bearing surface, a forward surface, and an aft surface, all of which extend lengthwise, wherein at least one of the surfaces is shaped to form a lengthwise extending passage within the channel, and wherein the passage has a flow direction that is oriented along the length of the at least one surface to permit cooling air travel along the at least one surface in a lengthwise direction.
2. (original) The rotor blade of claim 1, wherein the at least one surface is shaped to include at least one groove, and that groove forms the lengthwise extending passage within the channel.

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3. (original) The rotor blade of claim 2, wherein the damper body includes a first lengthwise end and a second lengthwise end, and the at least one groove extends substantially between the lengthwise ends of the body.
4. (original) The rotor blade of claim 2, wherein the damper body surfaces are shaped to include a plurality of lengthwise extending grooves.
5. (original) The rotor blade of claim 4, wherein one or both of the first bearing surface and second bearing surface are shaped to include a lengthwise extending groove.
6. (original) The rotor blade of claim 1, wherein one or both of the first bearing surface and second bearing surface are shaped to include a lengthwise extending groove, and each groove forms the lengthwise extending passage within the channel.
7. (original) The rotor blade of claim 6, wherein the damper body includes a first lengthwise end and a second lengthwise end, and the at least one groove extends substantially between the lengthwise ends of the body.
8. (original) The rotor blade of claim 1, wherein the damper body includes a first lengthwise end, a second lengthwise end, and an arcuate lengthwise extending centerline.
9. (original) The rotor blade of claim 8, wherein the arcuate centerline increases in curvature between lengthwise ends.

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10. (original) The rotor blade of claim 9, wherein the first lengthwise end of the damper body is disposed adjacent the base of the airfoil and the second lengthwise end of the damper body is disposed adjacent the tip of the airfoil, and the arcuate centerline increases in curvature in the direction from the first lengthwise end toward the second lengthwise end.

11. (original) A rotor blade for a rotor assembly, comprising:

a root;

an airfoil, having a length that extends between a base and a tip, a first side wall, a second side wall, at least one cavity disposed between the side walls, and a channel defined by a first wall portion and a second wall portion; and

a damper selectively received within the channel, the damper including a body having a first bearing surface, a second bearing surface, a forward surface, and an aft surface, all of which extend lengthwise, a first lengthwise end, a second lengthwise end, and an arcuate lengthwise extending centerline.

12. (original) The rotor blade of claim 11, wherein the arcuate centerline increases in curvature between lengthwise ends.

13. (original) The rotor blade of claim 12, wherein the first lengthwise end of the damper body is disposed adjacent the base of the airfoil and the second lengthwise end of the damper body is disposed adjacent the tip of the airfoil, and

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the arcuate centerline increases in curvature in the direction from the first lengthwise end toward the second lengthwise end.

14. (currently amended) A ~~rotor~~ blade damper receivable within a channel in an internally cooled rotor blade, said damper comprising:

- a first bearing surface;
- a second bearing surface;
- a forward surface; and
- an aft surface;

wherein at least one of the surfaces is shaped to include at least one lengthwise extending groove to accommodate a flow of coolant therewithin.

15. (original) The rotor blade damper of claim 14, further comprising:

- a first lengthwise end; and
- a second lengthwise end;

wherein the at least one lengthwise extending groove extends substantially between the lengthwise ends.

16. (original) The rotor blade damper of claim 15, wherein the surfaces are shaped to include a plurality of lengthwise extending grooves.

17. (original) The rotor blade of claim 14, wherein one or both of the first bearing surface and second bearing surface are shaped to include a lengthwise extending groove.

18. (original) The rotor blade damper of claim 14, wherein the damper includes a first lengthwise end, a second

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lengthwise end, and an arcuate lengthwise extending centerline.

19. (original)The rotor blade damper of claim 18, wherein the arcuate centerline increases in curvature between lengthwise ends.